Work Order I April-04-14 10:22:1			*115	5804*	_						Page 1	*
Revision ID:	07-5	A	Accept	*N900	040	100)*	Setup	Start Stop		S1*	=
Item Name: Ring Start Date: 4/04 Required Date: 4/04 Reference:	Start Qty: 20.00	*20* *20*	i i	Cust Item I Customer:	D:				Stop	*N	S2*	
	ocess Plan:	Date: <u> 小っ</u> りーごろ	Tooling: SPC (Y/N):		ate:			Run	Start Stop	^IV	R1* R2*	
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accep Qty	t Rej Qty		Reject Number	Insp. Stamp	-
Draw Nbr	Revision Nbr										 	
D3407	Rev E		1									
*100 *100* Waterjet FLOW CNC Waterjet 17-4 /4 ×4	FLOW WATER JET Memo 1-Cut as pe Dwg Rev: Prog Rev:		0.00				20	0			Jm14-04	-2(
	2-Break ed	ges on manual lathe Dwg D3	407 (175rpm)	÷								
*110 *110*	QC2- Inspect parts off r	machine FAI/FAIB	0.00				20	<u> </u>			Jm14-04-	26

Quality Control

DQA:			Date:											$\mathcal{L}_{\mathcal{A}}$ of
						WORK ORDER NON	-CO	ONFO	RMANCE / U	PDATE				AEROSPACE
QA Closed:			Date:							W	ork Order up	odate only		
Work Orde	r:		-	•		DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS		
Work or de						Rework	1		Skid-tube	Crosstube	7	Water Jet		Engineering
Part N	lo.					Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.		Quality
	•					Use-as-is	1		noforming	Finishing	-1	re/Packaging		Other
NCR N	lo.					Suspected Unapproved			Large Fab	Composite]	Supplier		
Doot	- 1				Dass	minetiani of manda and a minetiani			Λ - ·	•	C: 0	<u> </u>		
Root Cause	Ì	Date	Step	O+1/	Desc	ription of work order update or non-conformance	1	nitial	Act		Sign &	Varification	_	OC Inchestor
Design		Date	step	Qty		or non-conformance		ief Eng	Descr	ription	Date	Verification	1	QC Inspector
Doc/Data														
Equip/Tooling														
Handling/Pre								•						
Material				i										<i>;</i> ,
Operator						•								
Offset/Setup							l							
Process														
Supplier														
Training														
Transport														
Unapproved						· · · · · · · · · · · · · · · · · · ·								
							FA	ULT CAT	regory			· · · · · · · · · · · · · · · · · · ·		
Landir					_	General		1 .			7	1		ı
!		Bending			\vdash	Bend	_	4	Program	<u> </u>	Outside Dim		-	Pressure/Forced
		Centre No	ot Concer	ntric	_	BOM/Route	\vdash	Grain		<u> </u>	Over/Under			Set-up
		Cracks			<u> </u>	Broken/Damage/Defect	-	Hardwa			Part Incorre			Temperature/Cure
}		Crimp/Kir	nk/Ripple	/Wave	-	Burrs		1	ion Incomplete/Ur	· –	Part Lost/Mi	-	_	Weld
·		Cuffs			\vdash	Countaining		1	ions Incomplete/L	Jnclear	Part Moved			Wrong Stock Pulled
		Crushing			\vdash	Countersink	\vdash	1 1	gned/off center	<u> </u>	Positioned V	-		Jour
}		Heat Trea		Tubo	\vdash	Cut Too Short	\vdash	Mislabe		بـــ	Power Loss/	Surge		Other
		Inspection Marks/Ch		rube	\vdash	Drawing Drill Holes	\vdash	Misread Off-set		,				
		Turning S			-	Finish	-	4	Calibration					
		Wave/Tw			\vdash	Fit/Function	\vdash	4	Sequence					
		/				1. 19 / 41100011	1	June Of S	requeries					

	Vork Order ID 115804 pril-04-14 10:22:10 AM				5804*							Page 2		
Item ID: Revision ID: Item Name: Start Date: Required Date:	D3407-5 Ring 4/04/14 : 4/04/14	Start Qty: 20.00 Req'd Qty: 20.00	*20* *20*	Accept	*N900 Cust Item I		100) *	Setup	Start Stop	171	S1* S2*		
Reference: Approvals:	Process Pla	n:	Date:	Tooling: SPC (Y/N):		nte:	-		Run	Start Stop	"IV	R1* R2*		
Sequence ID/ Work Center I 120 *1 20* QC Quality Control	D	Operation Description QC8- Inspect parts - seco	nd check	Set Up/ Run Hours 0.00 PAE 0.00 PAE 0.00 PAE	Tool ID	Tool#	Plan Code	Accept Qty	t Rej Qty		Reject Number	Insp. Stamp		
130 *120* Packaging Packaging		Мето	ock Location:[<u>\u00</u> 0/ K IN LARGE FAB****	0.00)		ne	14.04.		
140 *1 4 n* QC Quality Control		QC21- Final Inspection - Memo	Work Order Release	0.00					<u>5</u> _	174 M	05 40 N	14-05-01		

DQA:		Date:							•			TRAGE
QA Closed:		Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / UI		Vork Order u	ndate only	AEROSPACE
					DISPOSITION						·	1
Work Orde	er:				DISPOSITION	_			AGAINST L	EPARTMENT	/PROCESS	
Part N	lo		_		Rework Scrap			Skid-tube Machining	Crosstube Small Fab	Pro	Water Jet od. Eng. Coor.	Engineering Quality
NCR N	lo		<u></u> .		Use-as-is Suspected Unapproved		Therr	noforming Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
Root				Desci	ription of work order update	ļ	Initial	Act	ion	Sign &		
Cause	Date	Step	Qty		or non-conformance	Ch	nief Eng	Descr	iption	Date	Verification	QC Inspector
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Doc/Data												
Equip/Tooling											·	
Handling/Pre						1						
Material		}				l						
Operator												
Offset/Setup												
Process												
Supplier												
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Transport												
Unapproved												·
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Landir	ng Gear			_	General		_		_	_		
	Bendin	3			Bend		Folio/F	Program	L	Outside Dim	nensions	Pressure/Forced
	Centre	Not Conce	ntric		BOM/Route		Grain		L	Over/Under	tolerance	Set-up
	Cracks				Broken/Damage/Defect		Hardwa	ire	L	Part Incorre	ci	Temperature/Cure
	Crimp/I	(ink/Ripple	e/Wave		Burrs		Inspect	ion Incomplete/Un	qualified	Part Lost/M	issing	Weld
ļ	Cuffs				Contamination	<u> </u>	Instruct	tions Incomplete/U	Inclear	Part Moved		Wrong Stock Pulled
	Crushin				Countersink		Misali	gned/off center		Positioned \		_
	Heat Tr				Cut Too Short		Mislabe	eled		Power Loss/	'Surge	Other
	—	ion Strip in	Tube		Drawing		Misrea	d .				
	Marks/	Chatter			Drill Holes		Off-set					
		Sequence			Finish		Out of	Calibration				
	Wave/1	wist in Tul	be		Fit/Function		Out of	Sequence				

Work Order ID: 115804

115804

Parent Item:

D3407-5

D3407-5

Parent Item Name:

Ring

Start Date: 4/04/14

Required Date: 4/04/14

Start Oty: 20.00

Required Oty: 20.00

Comments:

IPP Rev:A New Issue 05-11-22 JLM

IPP Rev:B Now on Waterjet 08-05-14 JLM Verified By:DD

IPP Rev:C 08-08-12 revE as per dwg (ecn 08-507) DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch		rimary ocation	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M174B0.250X4.000		Purchased	No			100	f	46.8300	0.2666	- 5.61263 2	2		
*M174R0	250X4 () ///		1					**	5,62	·		m1404-

17-4 SS Bar .250 X 4.00

Location	Loc Oty	Loc Code	
MAT049	46.83		
m127719	8.58		
₁ m127866	38.25		DDBFG



DQA:			Date:											A DT
5						WORK ORDER NON-	-CC	ONFO	RMANCE / UP	DATE			<i>را</i> ت ه	EROSPACE
QA Closed:			Date:							W	ork Order up	date only		
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	PROCESS	٠	
	•					Rework			Skid-tube	Crosstube	1	Water Jet	Engin	eering
Part N	No.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.		Quality
				-		Use-as-is		Therr	moforming	Finishing	Rec/Stor	e/Packaging		Other
NCR N	No.					Suspected Unapproved			Large Fab	Composite]	Supplier		
Root					Desc	ription of work order update		nitial	Actio	on	Sign &			
Cause		Date	Step	Qty		or non-conformance	Ċh	ief Eng	Descri	ption	Date	Verification	n QC	Inspector
Design														· · · · · · · · · · · · · · · · · · ·
Doc/Data				:										
Equip/Tooling													İ	
Handling/Pre														
Material														
Operator														
Offset/Setup														
Process								•						
Supplier			1											
Training		il.												
Transport														
Unapproved	<u> </u>						<u> </u>				<u></u>			
							FAI	ULT CA	TEGORY					
Landi		1				General		1 /-			1		¬.	
	-	Bending	-		-	Bend BOM/Boute	-	•	Program		Outside Dim		Pressure	e/Forced
	H	Centre No	ot Concen	itric	-	BOM/Route		Grain		ļ	Over/Under		Set-up	
	-	Cracks Crimp/Kir	ak/Binnla	Mayo	-	Broken/Damage/Defect		Hardwa			Part Incorred		 '	ature/Cure
	\vdash	Cuffs	ik/kihbie/	/ wave	-	Burrs	_	1	ion Incomplete/Und		Part Lost/Mi	ssing	- Weld	Anali Dullad
	\vdash	Crushing			-	Contamination Countersink	-	4	tions Incomplete/Ui gned/off center	ilciear	Part Moved Positioned W	/rong	wrong S	tock Pulled
	\vdash	Heat Trea			-	Cut Too Short	\vdash	Mislabe		 	Positioned w		Other	
	\vdash	Inspection		Tubo	<u> </u>	Drawing	\vdash	Misrea		<u>L</u>	Trower ross/:	ourge	Joiner	
		Marks/Ch	•	iube		Drill Holes	-	Off-set						
		Turning S			\vdash	Finish	<u> </u>	1	Calibration		<u></u>			
	 	Wave/Tw		e		Fit/Function	\vdash	4	Sequence					

DART AEROSPACE LTD	Work Order:	115804
Description: Tow Ring	Part Number:	D3407-5
Inspection Dwg: D3407 Rev: E		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

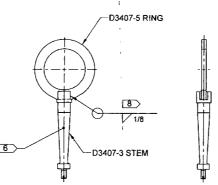
X	First Article		Prototype
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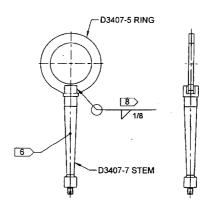
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.250	+/-0.010	0.250"	_		V	Itmos
Ø3.000	+/-0.030	3.004"	-		٧ .	
Ø2.050	+0.012/-0.001	2.052"			V	
0.75	+/-0.030	0750	_		J ·	
						•
			- DAS			·

Measured by: Jm	Audited by:	27 p-89]	Prototype Approval:	N/A
Date: 14-04-26	Date:	1414128	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	07.02.02	New Issue	KJ/JLM	
В	07.09.18	Tolerance revised	KJ/EC	
С	08.05.14	Dimensions updated per Dwg Rev D	KJ/JLM ,	11
D	09.05.04	Dwg Rev updated	KJ/DD 😾	6/1

Ê QTY -041 QTY -045 PART NUMBER DESCRIPTION **TOW RING** D3407-041 D3407-043 TOW RING X D3407-045 TOW RING D3407-1 D3407-3 STEM STEM D3407-5 RING STEM D3407-7 -D3407-5 RING





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D3407-041 TOW RING

-D3407-1 STEM

D

D3407-043 TOW RING

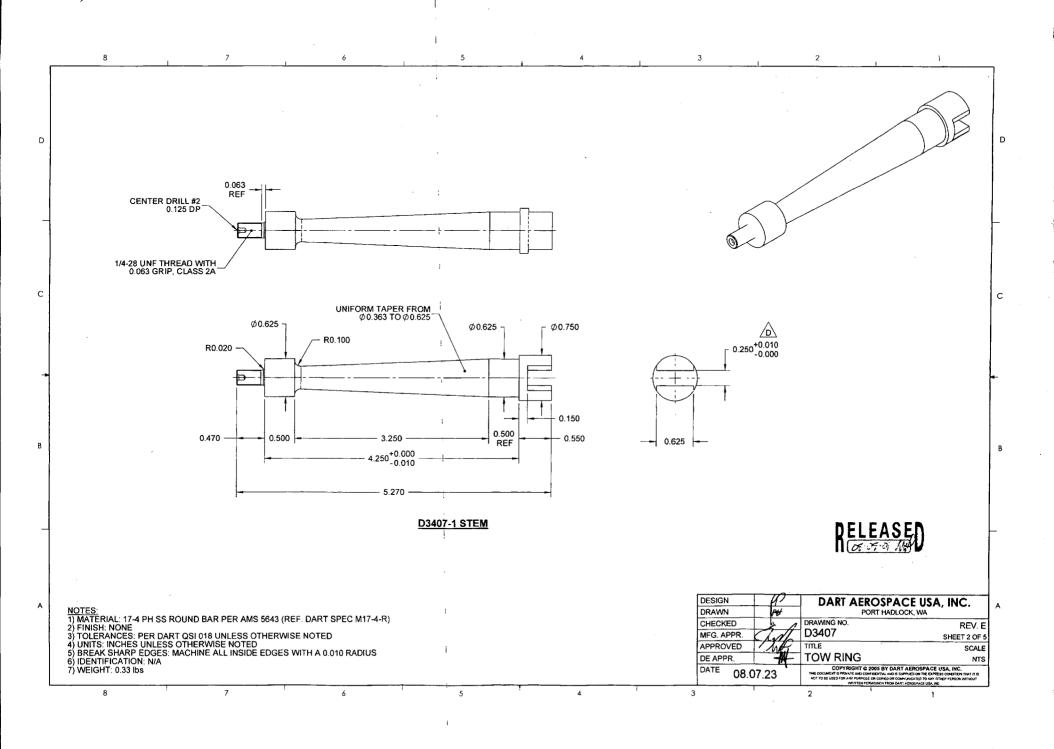
<u>D3407-045 TOW RING</u> ≜

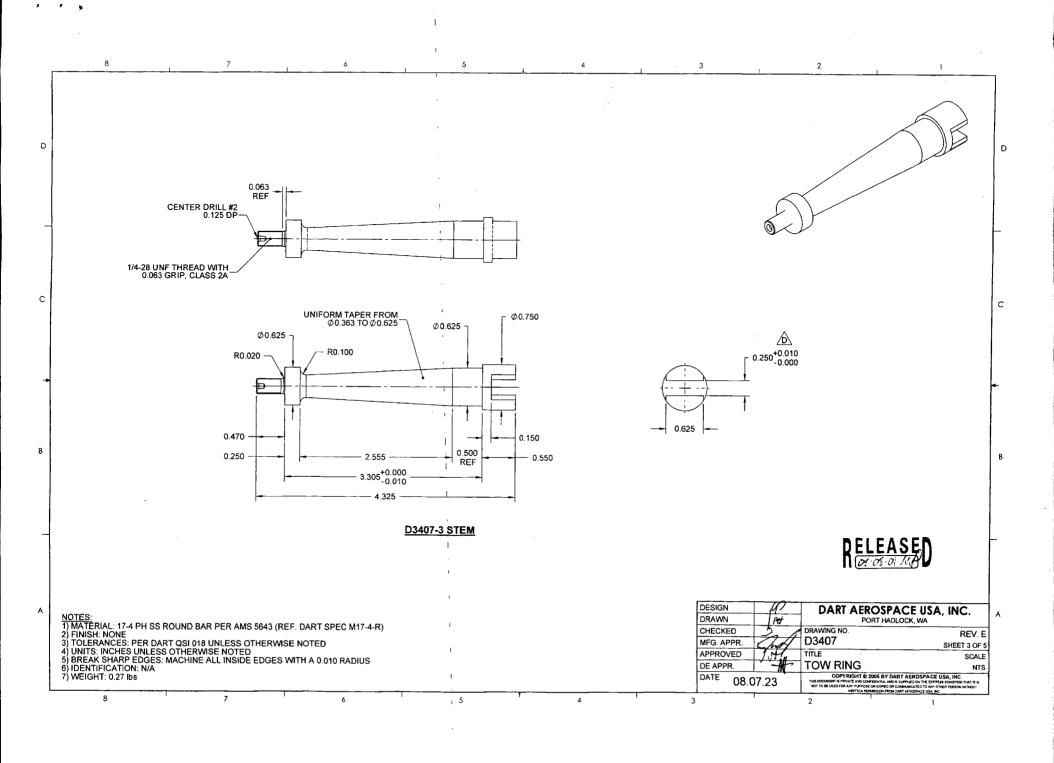
REV.	DESCRIPTION	BY	DATE
Α	NEW ISSUE	CP	05.03.16
В	UPDATE DIAMETER, THREAD CLASS ADDED	CP	05.06.17
С	-1/-3 LONGER FOR FIT W/WASHER	CP	05.09.09
D	D3407-1/-3 SLOT WAS ROUND NOW FLAT FOR ASSEMBLY WITH D3407-5 (ZN C2-2, C2-3); D3407-5 WAS ROUND NOW FLAT ON ONE END FOR ASSEMBLY WITH D3407-1/-3 (ZN B6-4); REASON: PRODUCTION FACILITY	PH	08.04.07
E	ADD D3407-045 (ZN B2-1, D8-1); ADD D3407-7 (ZN B6-5); REVISED NOTE 6 TO ADD IDENTIFICATION (ZN A5-1); REASON: PRODUCTION FACILITY	PH	08.07.23

DESIGN	197	□ DART AEROSPACE USA, INC.		
DRAWN	Pet	PORT HADLOCK, WA		
CHECKED	15_1	DRAWING NO.	REV. E	
MFG. APPR.	6.dl	D3407	SHEET 1 OF 5	
APPROVED	_/\\	TITLE	SCALE	
DE APPR.		TOW RING	NTS	
DATE 08.0	7.23	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PROVIED AND COMPONENT AND SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OF CONTROL OR COMMISSATED TO ANY OTHER PERSON WITHOUT		

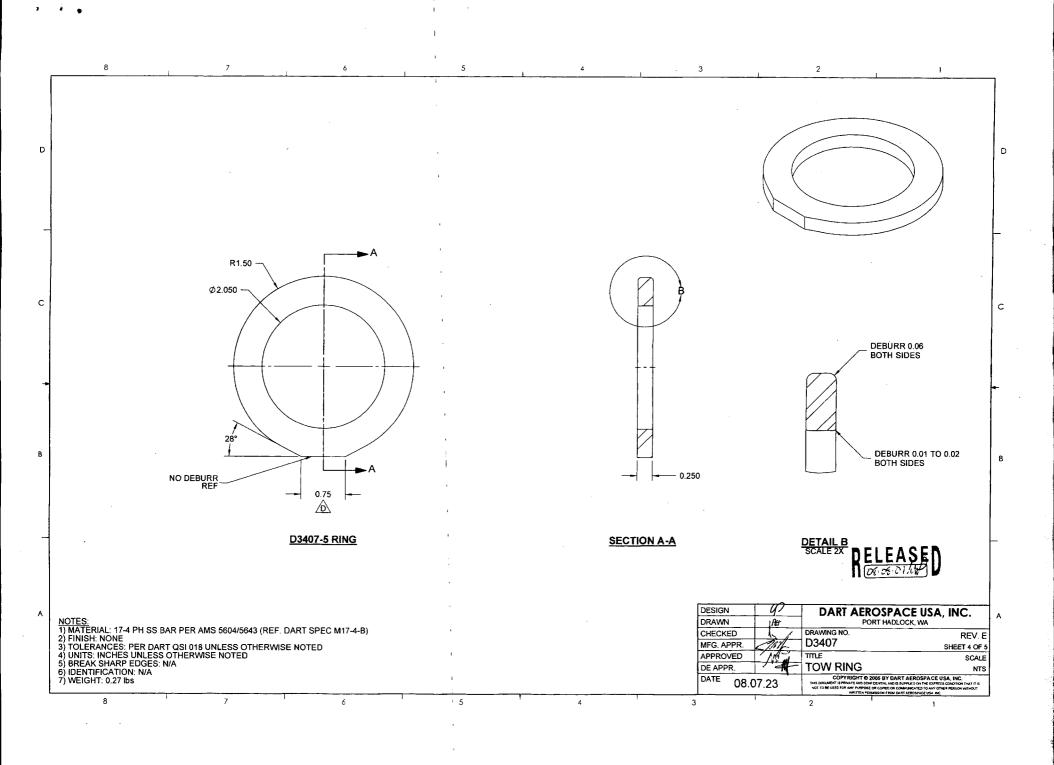
1) MATERIAL: NIA
2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 (EXCEPT THREADS)
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: NIA
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3407-XXX" USING BLACK FINE POINT PERMANENT INK MARKER
7) WEIGHT: D3407-041 - 0.60 lbs, D3407-043 - 0.53 lbs, D3407-045 - 0.61 lbs
8) WELD PER DART QSI 004 ON ALL EDGES BETWEEN STEM AND RING

8





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